

R E M A R K S

Reconsideration of this application, as amended, is respectfully requested.

THE CLAIMS

_____ Claims 1 and 17 have been amended to clarify the features of the present invention whereby pixel data of the image data is divided into unit blocks so that each unit block is formed of an aggregate of n pixels, where $n > 1$, and whereby an adhered amount of the colorless ink is determined by the amount of recording ink in each unit block. See Figs. 10 and 11A-C, and the disclosure in the specification at page 71, line 15 to page 73, line 6.

In addition, claims 2, 4, 9, 12, 18, 20 and 25 have been amended to better accord with amended independent claims 1 and 17.

Still further, new claims 35-38 have been added based on the disclosure in the specification at page 71, line 15 to page 72, line 11.

No new matter has been added, and it is respectfully requested that the amendments to the claims be approved and entered.

THE PRIOR ART REJECTION

Claims 1-6, 15, 17-20 and 22 were rejected under 35 USC 103 as being obvious in view of the combination of JP 2002-307755

("Takabayashi et al") and US 2002/0163551 ("Bruch et al"). In addition, claims 1-4, 9, 11-13, 15, 17-20, 25, 27-29, 31, 33 and 34 were rejected under 35 USC 103 as being obvious in view of the combination of USP 6,877,850 ("Ishimoto") and Bruch et al. Still further, claims 7 and 23 were rejected under 35 USC 103 as being obvious in view of the combination of Takabayashi et al and US 2001/0015745 ("Onishi et al") and the combination of Ishimoto et al and Onishi et al, and claims 14 and 30 were rejected under 35 USC 103 as being obvious in view of the combination of Ishimoto et al and US 2001/0017642 ("Shigemura"). These rejections, however, are all respectfully traversed with respect to the claims as amended hereinabove.

The present invention relates to an inkjet recording method and an inkjet printer which jet ink onto a recording medium with improved gloss.

Amended independent claim 1 recites an ink recording method which comprises jetting onto a recording medium (P), by recording heads (22), recording ink containing a color material and colorless ink for improving gloss, to perform image formation according to an image data. See, for example, Fig. 4 of the present application. In addition, amended independent claim 1 recites dividing pixel data of the image data into unit blocks so that each unit block is formed of an aggregate of n pixels, where $n > 1$, and determining an adhered amount of the colorless ink in

each said unit block in response to an adhered amount of the recording ink in each said unit block, wherein each said unit block is set to have a size of 1 mm square or less on the recording medium, and the adhered amount of the colorless ink for each said unit block is determined such that a sum total of the adhered amounts of the colorless ink and the recording ink in each said unit block is at least a predetermined amount. See, for example, Figs. 10 and 11A-C of the present application.

Amended independent claim 17, moreover, recites an ink recording apparatus having structural features corresponding to the method of amended independent claim 1.

With the structure and method of the present invention as recited in amended independent claims 1 and 17, it is possible to improve the glossiness of blank and highlighted portions, in which the adhered amount of recording ink is small, by jetting colorless ink containing a dispersed resin onto these portions. As a result, the image imprinted on the recording medium does not look uneven in terms of glossiness. To achieve this, the adhered amount of the colorless ink is controlled per unit area. That is, the adhered amount of the colorless ink is controlled per aggregate of a plurality of pixels forming a block and set as a 1mm square or less.

By contrast, Takabayashi discloses that colorless ink is adhered to dots to which recording ink is not adhered and the

adhered amount of ink in each dot is the same as those in the other dots. See, for example, the abstract and Figs. 4 and 5 of Takabayashi. Thus, unlike as according to the claimed present invention, Takabayashi teaches applying colorless ink for glossiness only to places where recording ink is not adhered.

It is respectfully submitted, therefore, that Takabayashi clearly does not disclose, teach or suggest determining an adhered amount of colorless ink in unit blocks in response to an adhered amount of the recording ink in each said unit block, as according to the present invention as recited in amended independent claims 1 and 17.

Bruch et al, moreover, discloses that the number of drops per mm is indicated as an index for showing a printed resolution. See, for example, paragraph [0041] of Bruch et al. This reference, however, makes no mention of affecting the amount of colorless ink ejected with respect to the size of an area to which ink is adhered. In fact, Bruch et al discloses changing the amount of a second ink ejected based on the number of drops of a first ink ejected. See, for example, paragraph [0042] of Bruch et al.

It is respectfully submitted, therefore, that Bruch et al also does not disclose, teach or suggest determining an adhered amount of colorless ink in unit blocks in response to an adhered amount of the recording ink in each said unit block, as according

to the present invention as recited in amended independent claims 1 and 17.

Still further, it is noted that although Ishimoto discloses controlling an adhered amount of recording ink per unit area and colorless ink per unit area, this reference makes no mention of an actual size of a unit area for controlling the adhered amount. Indeed, in Ishimoto, the resin component is only applied so that it is substantially uniform over the entire recording surface. See, for example, column 3, lines 19 to 30 of Ishimoto. That is, Ishimoto does not disclose, teach or suggest that the size of unit area may have an affect on the amount of colorless ink applied. And in Ishimoto, there is no need for a size of the unit block to be set.

It is respectfully submitted that, therefore, that Ishimoto does not disclose, teach or suggest the features of the present invention as recited in amended independent claims 1 and 17 whereby an adhered amount of the colorless ink in each said unit block is determined in response to an adhered amount of the recording ink in each said unit block, wherein each said unit block is set to have a size of 1 mm square or less on the recording medium, and the adhered amount of the colorless ink for each said unit block is determined such that a sum total of the adhered amounts of the colorless ink and the recording ink in each said unit block is at least a predetermined amount.

In summary, it is respectfully submitted that none of the cited prior art references discloses, teaches or suggests dividing pixel data into unit blocks and then determining an adhered amount of colorless ink in each unit block as according to the present invention as recited in amended independent claims 1 and 17. In addition, it is respectfully submitted that none of the cited prior art references discloses, teaches or suggests setting the size of the unit block by considering the resolution relating to the gloss and the evenness of the gloss, as according to the present invention as recited in amended independent claims 1 and 17.

In view of the foregoing, it is respectfully submitted that the amended independent claims 1 and 17, and claims 2-4, 6, 7, 9, 11-15, 18-20, 22, 23, 25, 27-31 and 33-38 respectively depending therefrom, clearly patentably distinguish over all of the cited prior art references, taken singly or in any combination consistent with the respective fair teachings thereof, under 35 USC 103.

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Entry of this Amendment, allowance of the claims and the passing of this application to issue are respectfully solicited.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

Respectfully submitted,

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